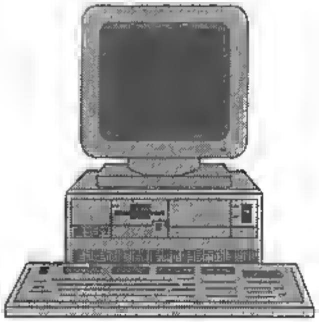
NexGen™

Most Advanced x86 Processors



1/11/96

The Vision

Choice is good.

The Mission

Leadership in high performance
x86 processors for mainstream users.

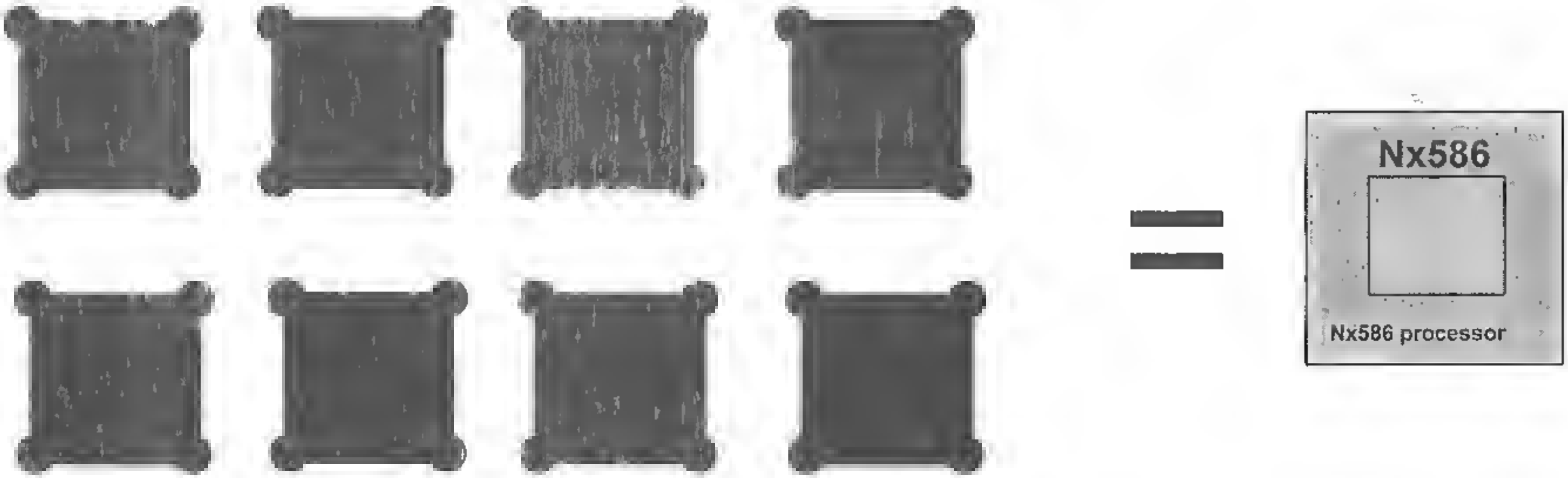
The Value of NexGen Intellectual Property

Circa 1990

In the beginning, when the state-of-the-art in chip fabrication equipment etched components down to one micron line widths, the sheer number of transistors in the Nx586 could only be implemented as a set of 8 chips.

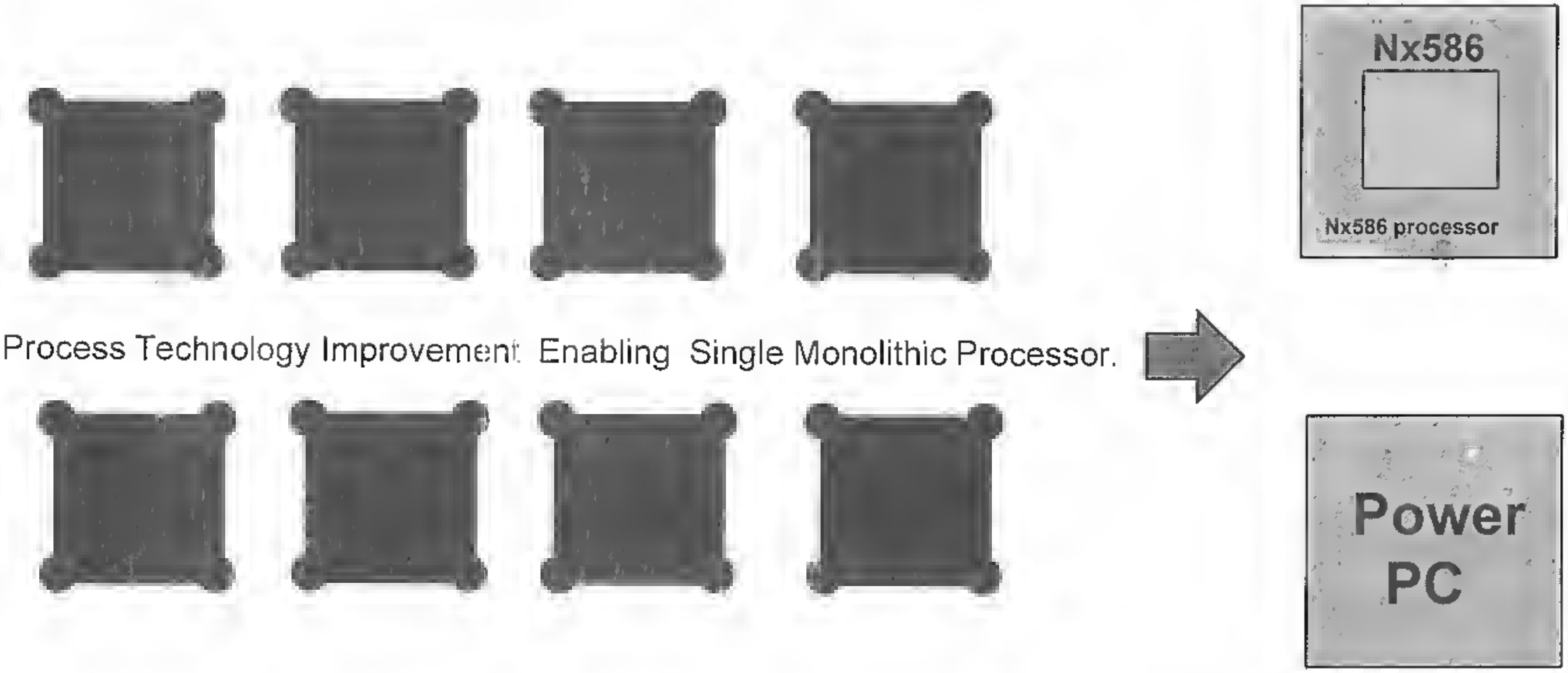
The Value of NexGen Intellectual Property

Circa 1993



Then, as fabrication equipment improved and line widths grew smaller, Nx 586 could suddenly be built as one single processor.

The Value of NexGen Intellectual Property



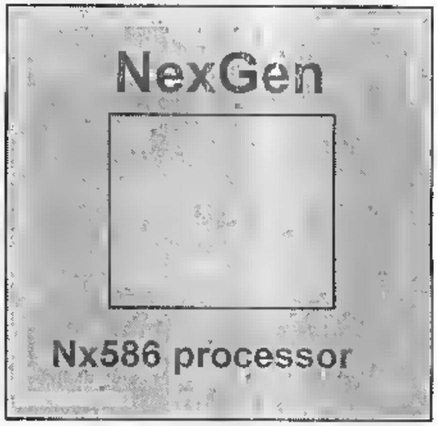
Process Technology Improvement Enabling Single Monolithic Processor.

Strategically, development of Nx586 follows the exact same path as IBM's evolution of the RISC 6000 chip set to Power PC!

The Value of NexGen Intellectual Property

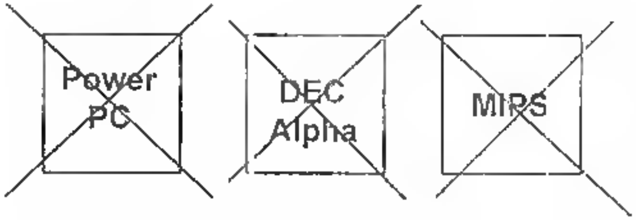
With one crucial exception . . .

The Value of NexGen Intellectual Property



Nx586 . . . Worlds Most Advanced Windows Compatible Processor.

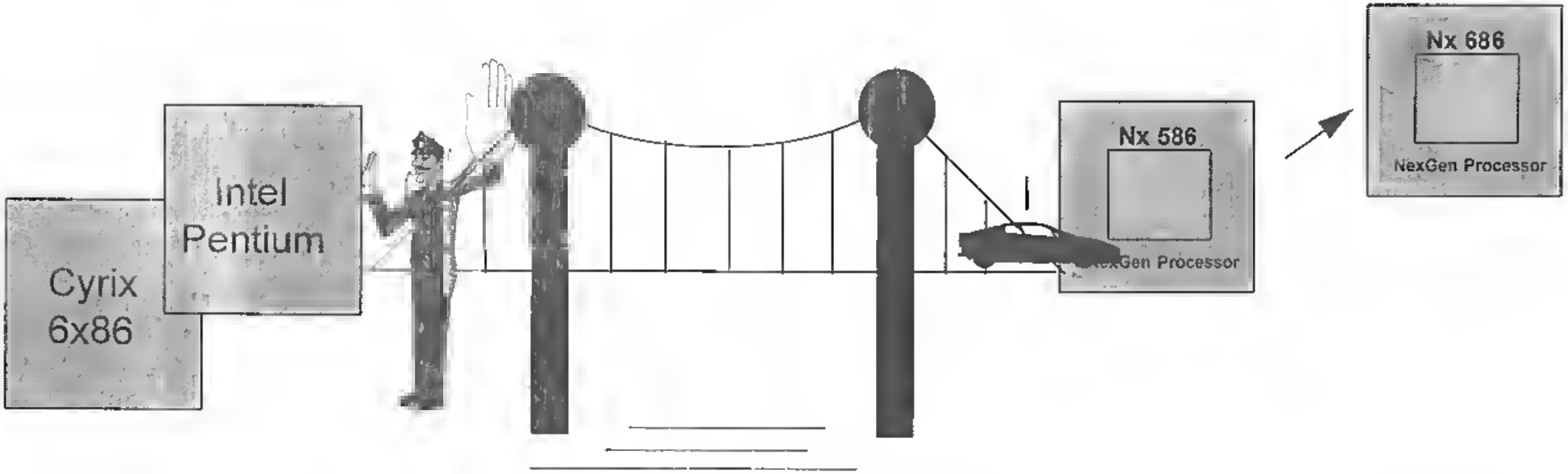
NexGen Patented RISC86™ Microarchitecture leverages RISC performance principles while delivering full binary compatibility with the x86 instruction set in native mode operation.



RISC performance that cannot run x86 applications in native mode.

NexGen™

The Value of NexGen Intellectual Property



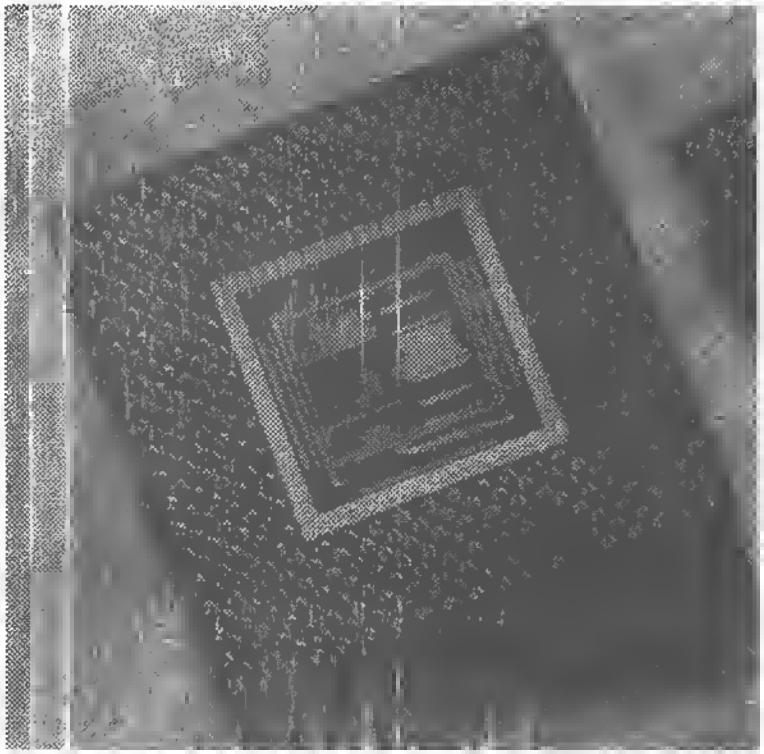
NexGen has already crossed the bridge to RISC performance and is now two generations ahead of CISC alternatives.

NexGen™

Nx586 is Fully x86 Compatible and Has Won Numerous Awards for Design Innovation.

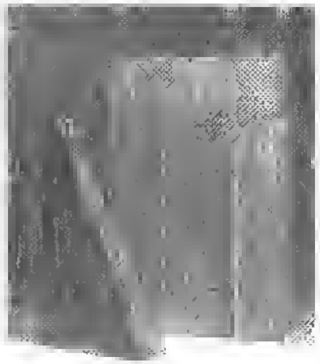
PC Praxis Magazine

Most Innovative New Product



PC Magazine

Most Innovative New Product

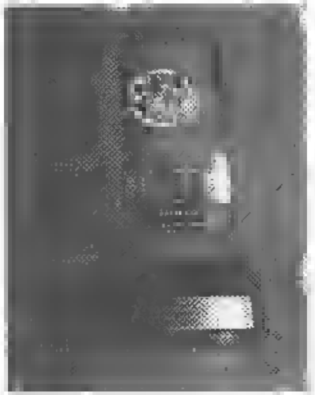


Cebit Highlights Award

Most Innovative New Product

PLATINUM
XXCAL, INC.
TESTING LABORATORIES
CERTIFIED

1994
BYTE
AWARD
OF
EXCELLENCE



Byte Magazine

Award of Excellence

Recognized World Wide by Computing Authorities

TEST REPORT World

NexGen Chip Challenges Pentium Performance

- PC World

PENTIUM ALTERNATIVE

There's a new chip in town—NexGen's Pentium-compatible Nx586. Some two dozen vendors are using it to deliver PCs

- PC World

NexGen closes Pentium CPU GAP

PROCESSORS Launches 90MHz and 100MHz chips

- PC Week

Tangent and NexGen Team Up to Challenge Intel PC Magazine

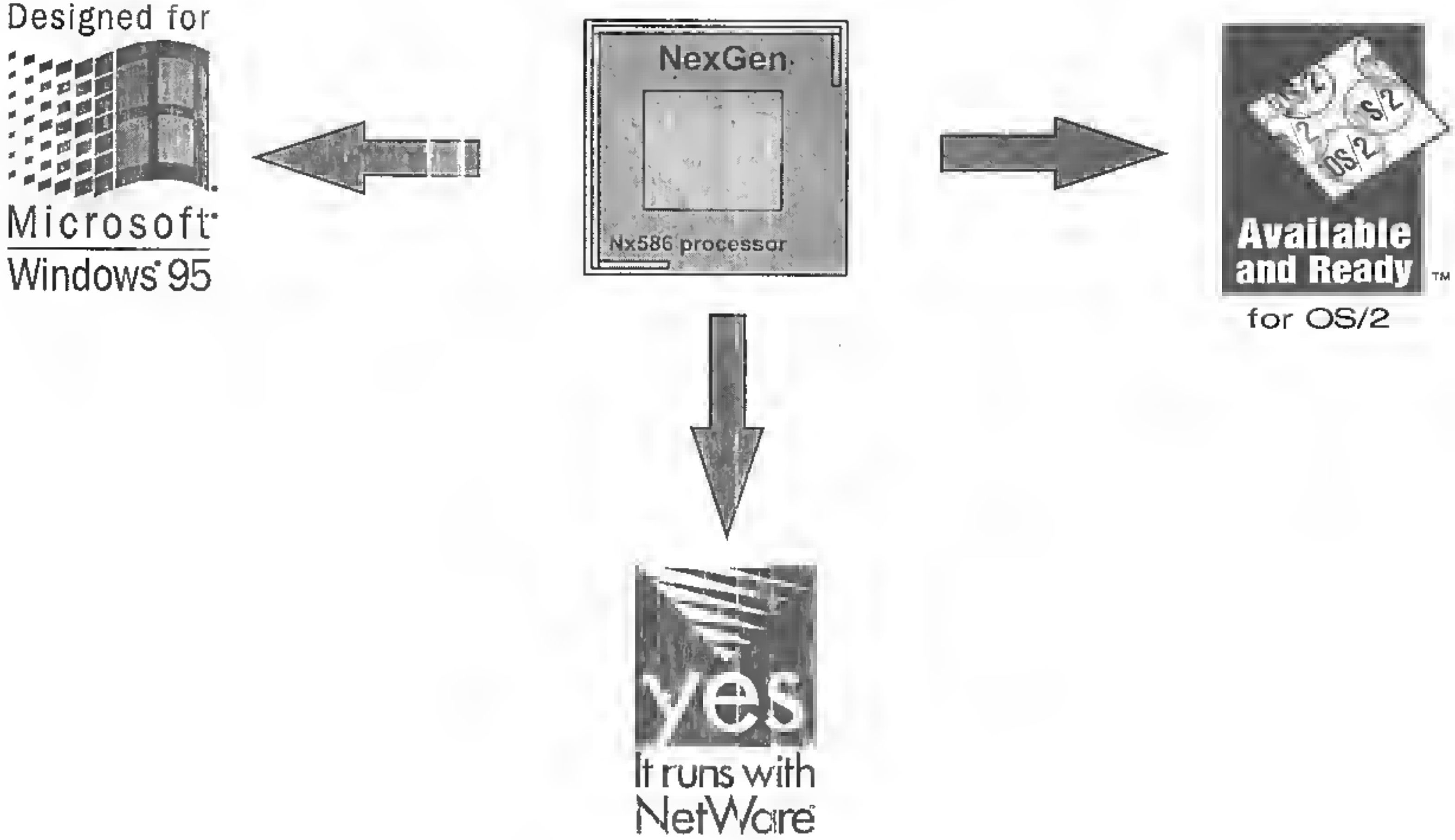
NexGen's Come-from-Behind Strategy - Byte Magazine

Don't buy a Pentium... PC Magazine

until you've read about the world's first **586!**

- PC Magazine UK

Nx586 is the World's First x86 Processor Optimized for 32-bit Operating Systems & Software

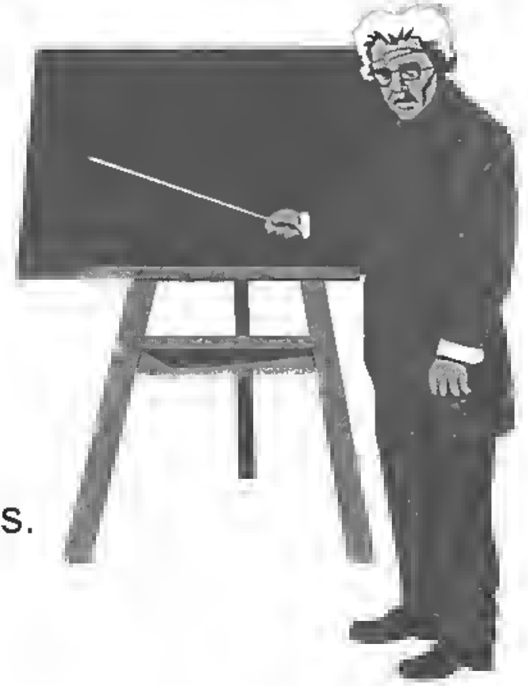


NexGen™

Nx586 Offers the Most Advanced Features Available Today for Robust Applications Performance

	Nx586	Pentium Pro (P6)	Pentium	Cyrix 6x86
5th Generation Performance Elements	■	■	■	■
Superscalar Execution	■	■	■	■
Advanced Harvard Architecture (Separate Vs Unified) On-Chip L1 Data & Instruction Caches	Advanced 32k:16k+16k	Advanced 16k:8k+8k	Advanced 16k:8k+8k	Unified 16k
Advanced or Simple Branch Prediction	Advanced	Advanced	Simple	Simple
Number of 64-bit CPU Buses Supporting Rapid Data Transfer	2	2	1	1
High Performance Floating Point	■	■	■	■
NexGen Advantages				
RISC86™ Microarchitecture	■			
RISC Core	■	■		
Register Renaming	■	■		■
Data Forwarding	■	■		■
Speculative Execution / Backout	■	■		■
Out-of-Order Execution	■	■		■
On-Chip L2 Write-Back Cache Controller	■	■		
Private L2 Cache Data Bus	■	■		
Shipping in Volume	■		■	

Key Nx586 Technical Features Benefiting 16-bit & Especially 32-bit Application's Performance



2x On-Chip L1 cache; 32k Vs 16k

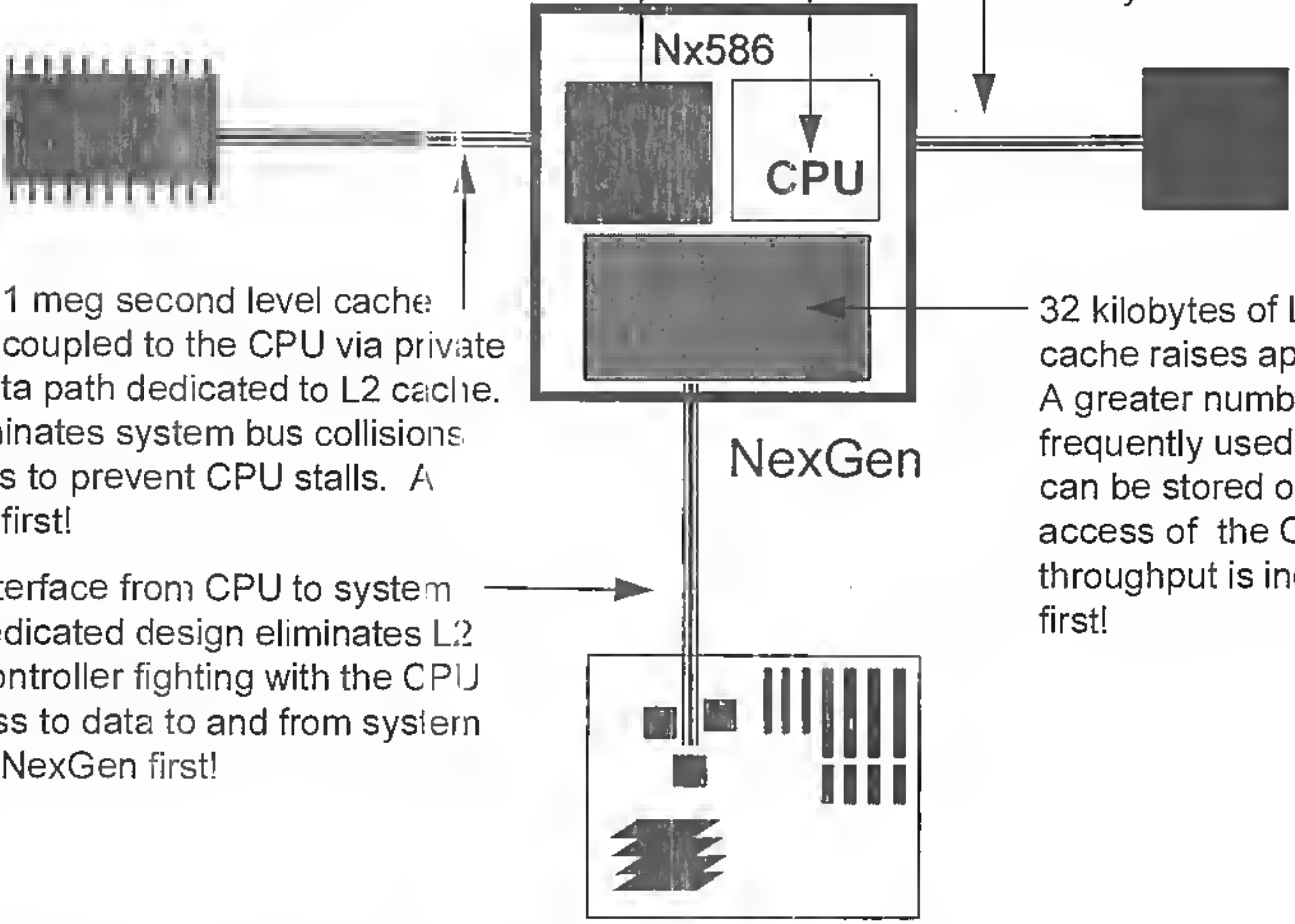
RISC86™ Microarchitecture supporting single cycle execution. Out of order and speculative execution of fixed length RISC instructions reduce data bubbles & stalls to execution units.

Advanced branch predications allows execution to continue through branches with minimum back-outs.

Tight coupling of L2 cache memory to CPU enables operation at full speed.

Dedicated 64-bit wide data paths to processor direct memory systems. A freeway for 16 and 32-bit applications.

Nx586 Design Provides Superior Performance



Level 2 cache controller integrated on chip provides for full speed L2 operation.

RISC Execution Units. A NexGen First!

All dedicated 64-bit freeways for data.

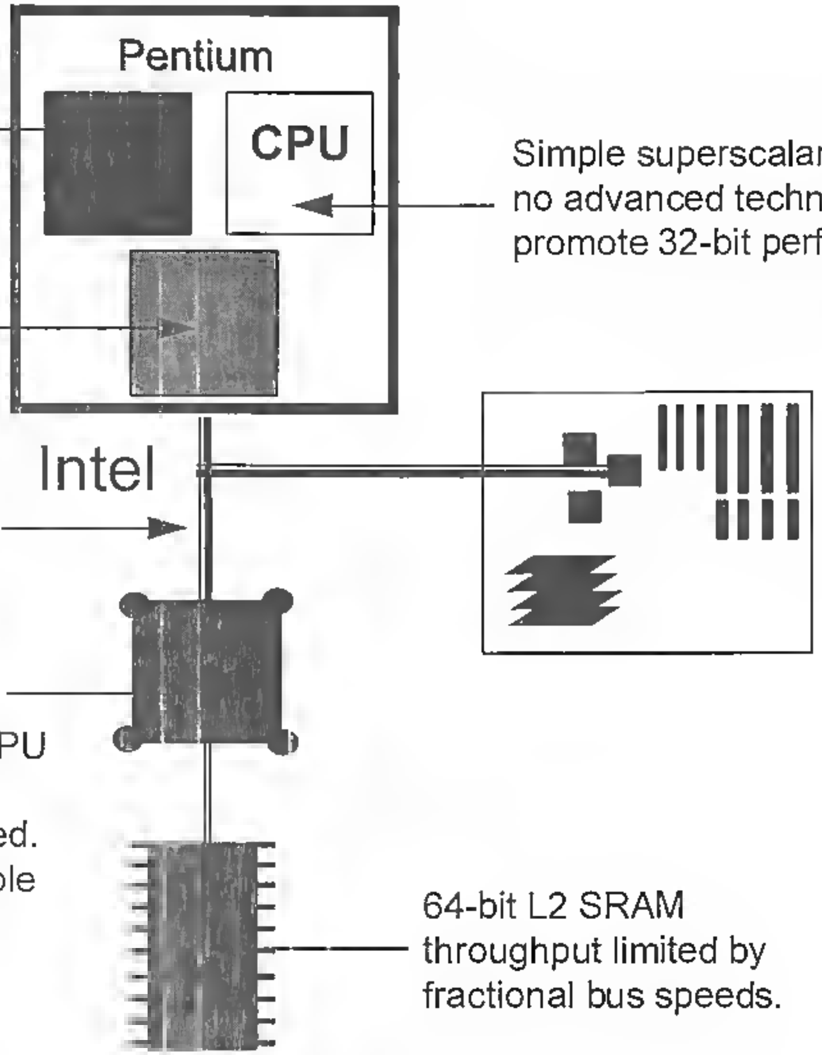
Optional FPU tightly coupled to CPU via 64-bit data path.

256 k or 1 meg second level cache is tightly coupled to the CPU via private 64-bit data path dedicated to L2 cache. This eliminates system bus collisions and helps to prevent CPU stalls. A NexGen first!

32 kilobytes of Level 1 “On-Chip” cache raises applications performance. A greater number of a program’s most frequently used instructions and data can be stored on chip, within quick access of the CPU. Data processing throughput is increased. A NexGen first!

64-bit Interface from CPU to system logic. Dedicated design eliminates L2 cache controller fighting with the CPU for access to data to and from system logic. A NexGen first!

Intel Pentium's Approach Falls Short



16 kilobytes of Level 1"On-Chip" cache supports one-half the number of software instructions and data. Subsequently, the CPU is forced to access data off chip more frequently. Cache miss promotes processor stall. Off chip access further erodes performance.

Simple superscalar pipeline using no advanced techniques does not promote 32-bit performance.

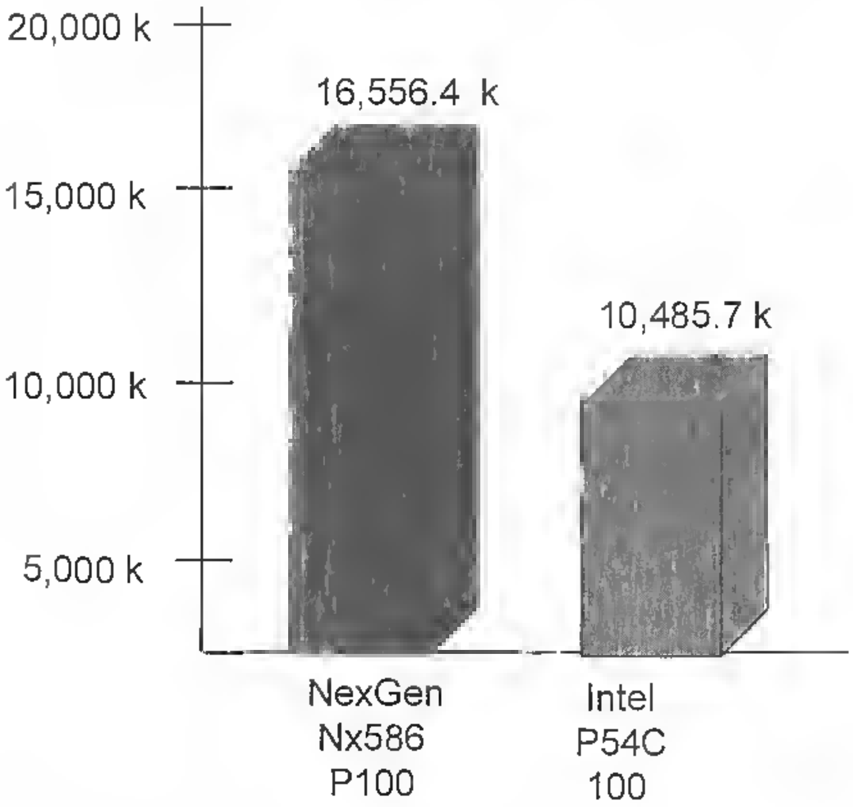
Shared bus design results in bus contention. CPU and L2 cache fight for access to main memory stalling processor.

Off Chip Level 2 cache controller capable of operation up to 66 MHz. Provides one-half CPU speed operation to 133 MHz. Performance ratio at 150 MHz drops to two-fifths CPU speed. At 180 MHz to one-third CPU speed. Incredible performance bottle neck results from clock speeds at 133 MHz and above.

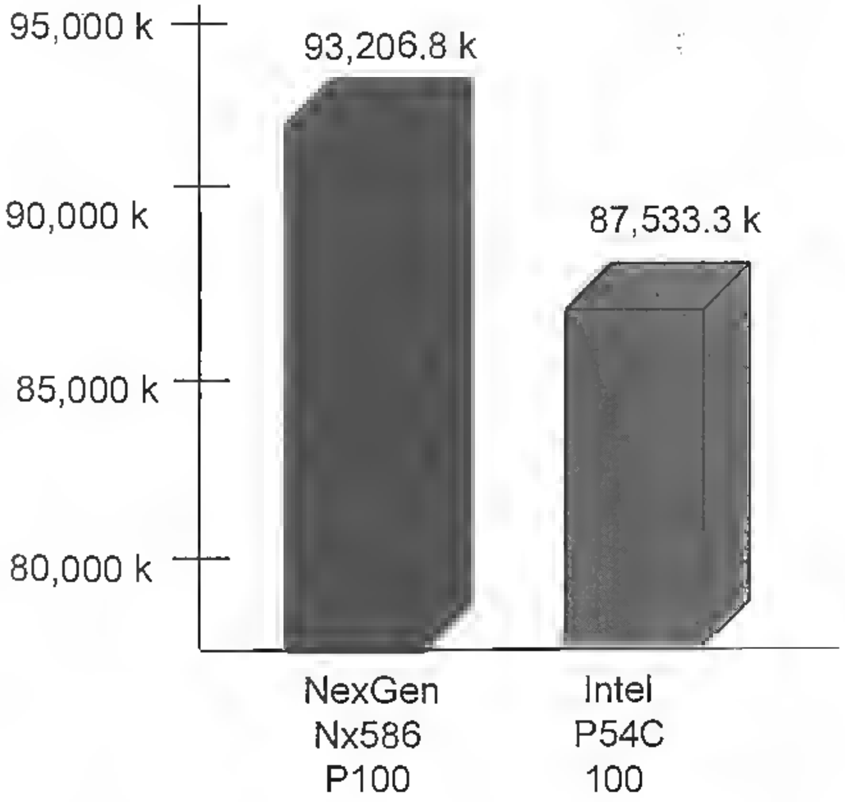
64-bit L2 SRAM throughput limited by fractional bus speeds.

Micro-Scope 2000 Shows Nx586 Throughput Potential Given Unique Cache & CPU Optimizations

Memory Transfer Rate Per Second



Instructions Calculated Per Second



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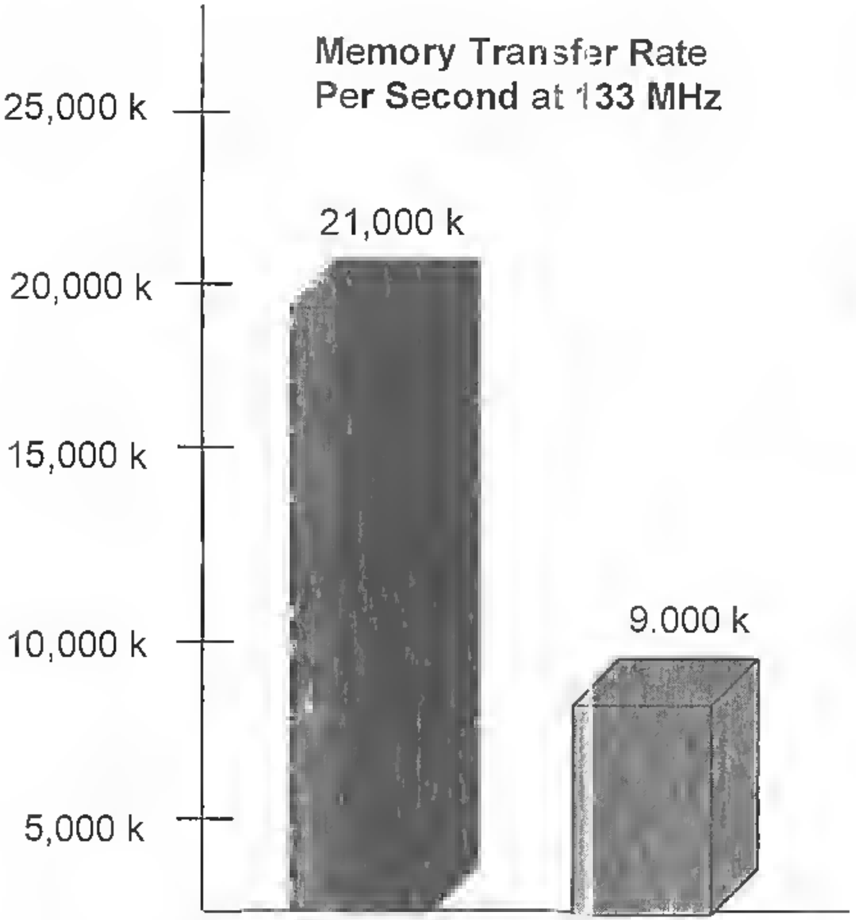
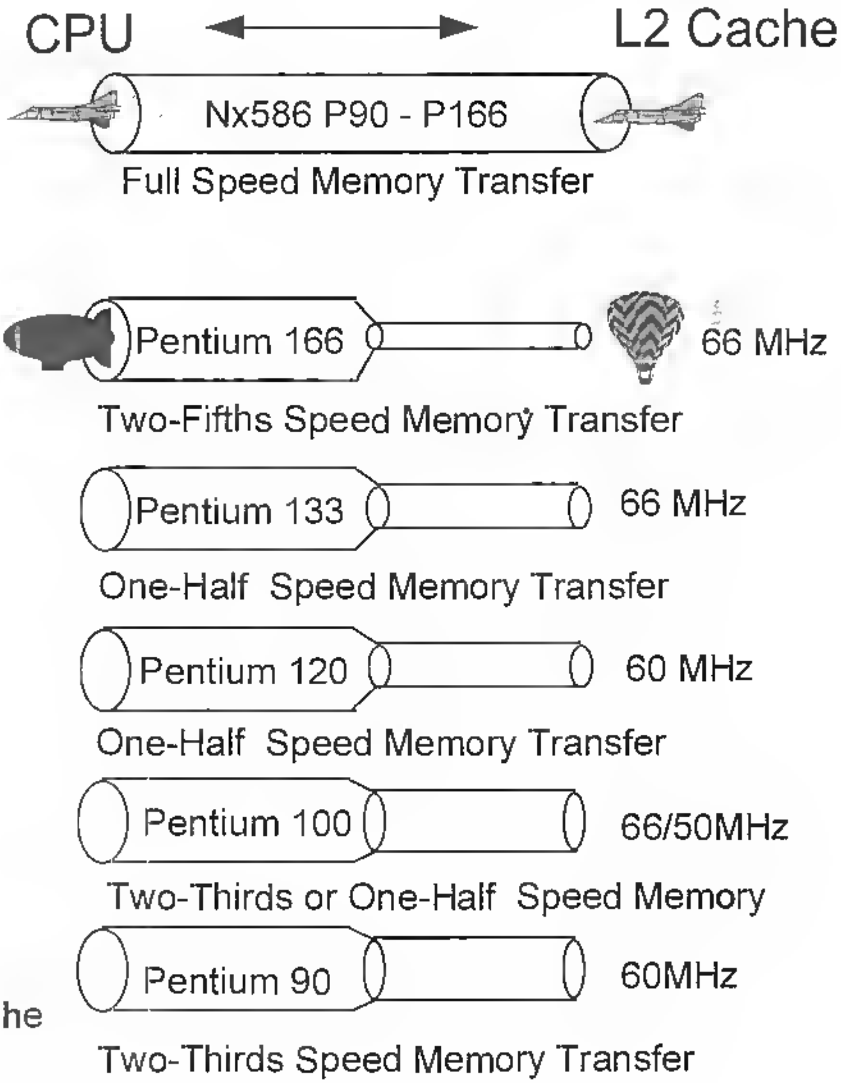
Micro-Scope 2000 Shows Nx586 Throughput @ P133



The Faster Pentium gets on chip . . . the slower the system becomes due to L2 cache bottleneck.



CPU ←→ L2 Cache

Nx586 P90 - P166

Full Speed Memory Transfer

Pentium 166 — 66 MHz

Two-Fifths Speed Memory Transfer

Pentium 133 — 66 MHz

One-Half Speed Memory Transfer

Pentium 120 — 60 MHz

One-Half Speed Memory Transfer

Pentium 100 — 66/50MHz

Two-Thirds or One-Half Speed Memory

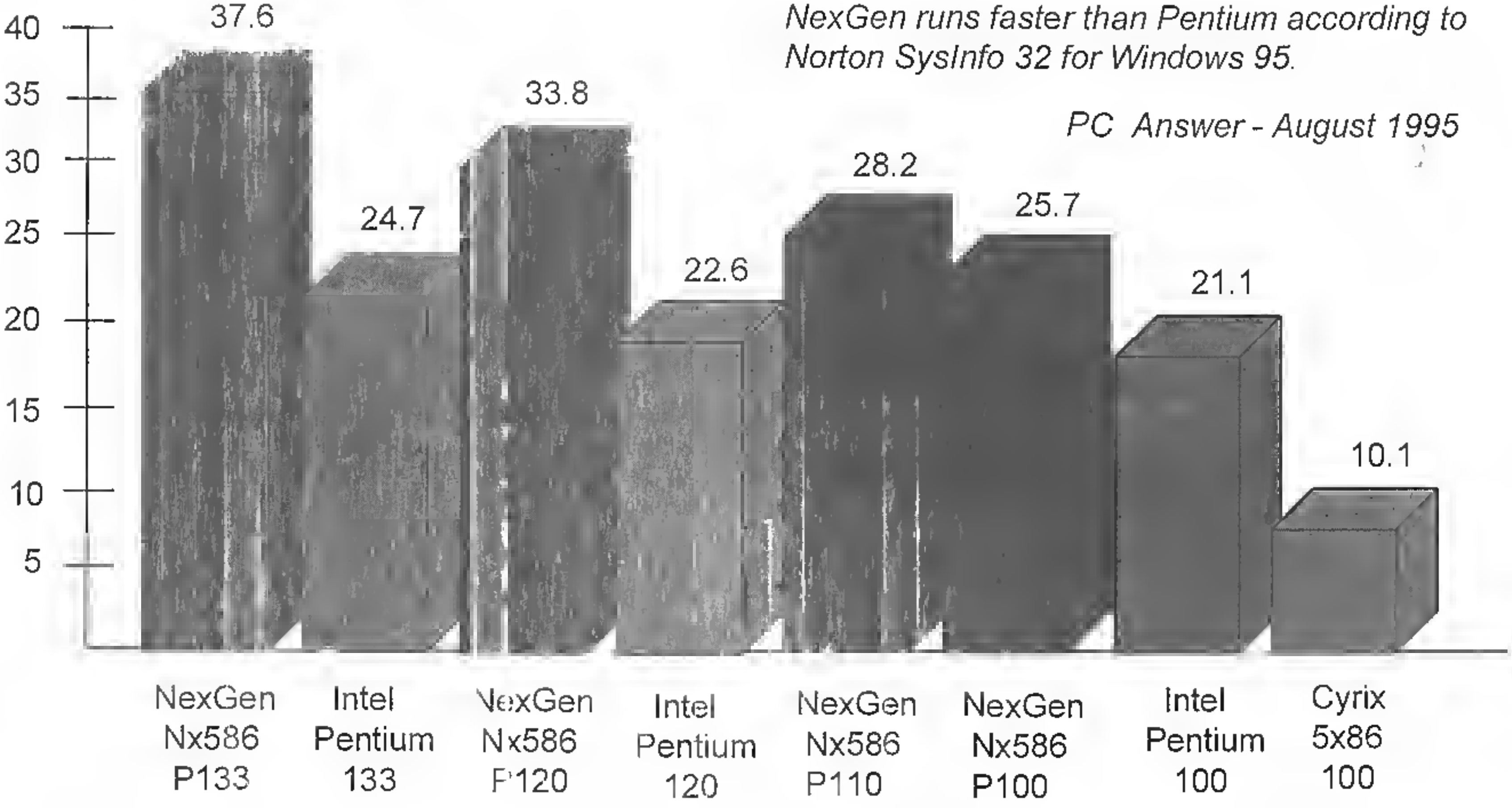
Pentium 90 — 60MHz

Two-Thirds Speed Memory Transfer

"Based on the design techniques . . . Nx586 may resemble Intel's P6 more than Pentium".

Michael Slater, Editor, Microprocessor Report - October, 1994

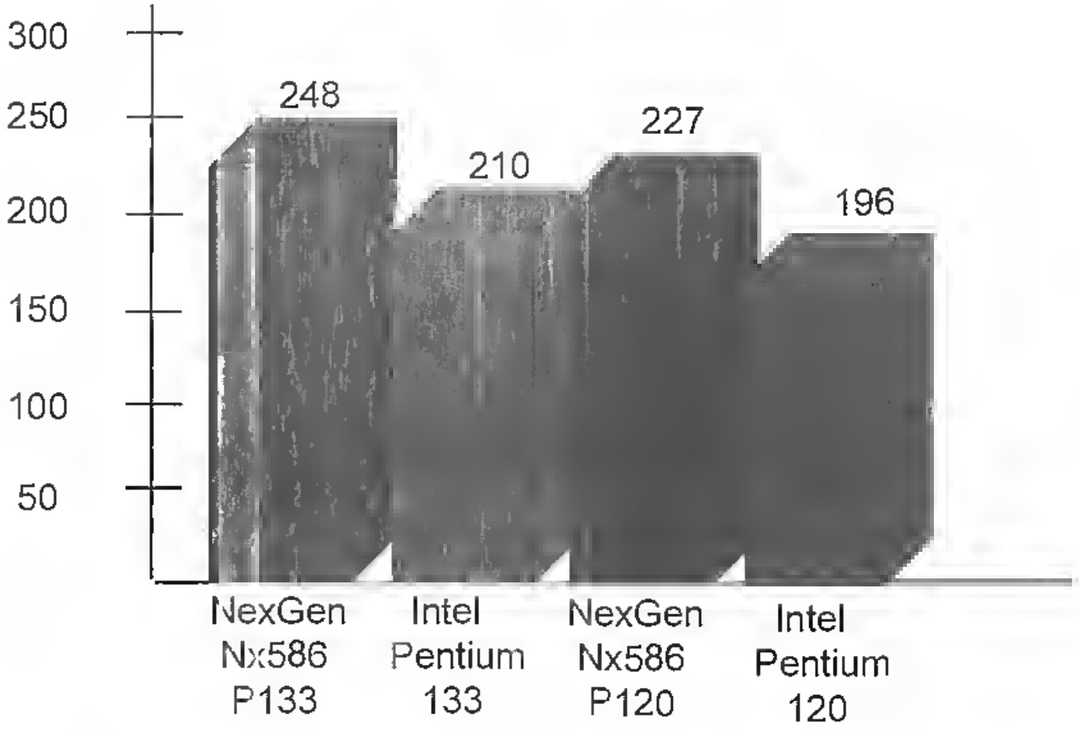
When it Comes to Nx586 Performance Leading 32-bit Benchmarks Speak for Themselves



NexGen runs faster than Pentium according to Norton SysInfo 32 for Windows 95.

PC Answer - August 1995

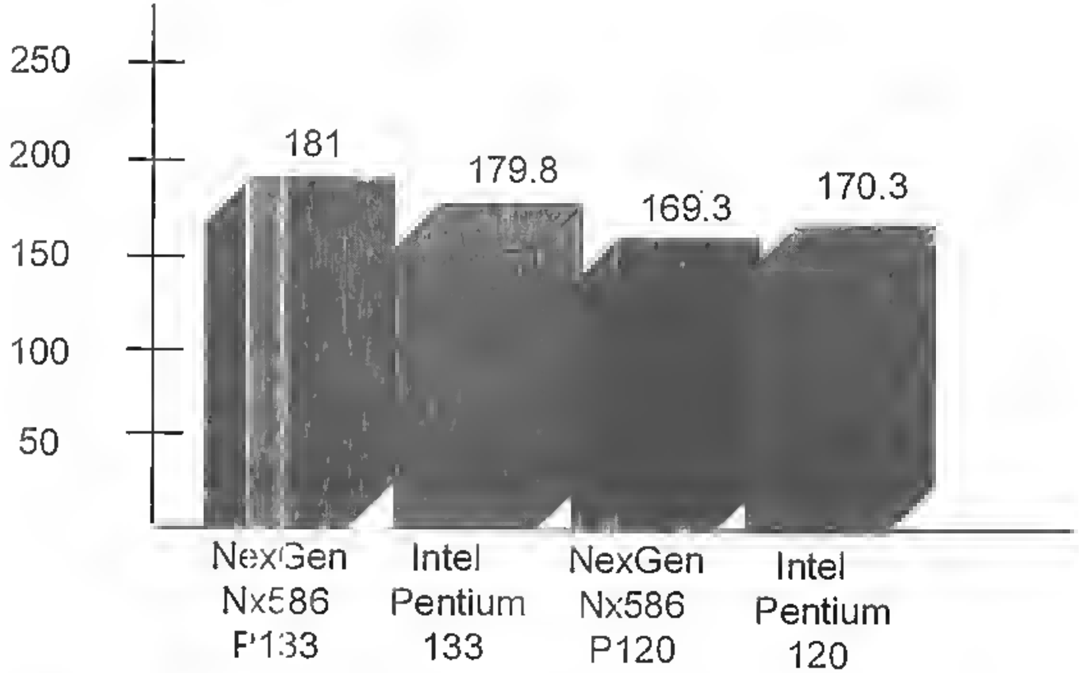
When it Comes to Nx586 Performance Leading 32-bit Benchmarks Speak for Themselves



Nx586 Outperforms Pentium on Ziff Davis Labs CPUMark32

*Identical Configurations; Diamond Stealth 64 32000 PCI, Quantum 1GB Fireball, 16 MB DRAM, 800x640 256 color, 256K L2 async

When it Comes to Nx586 Performance Leading 32-bit Benchmarks Speak for Themselves



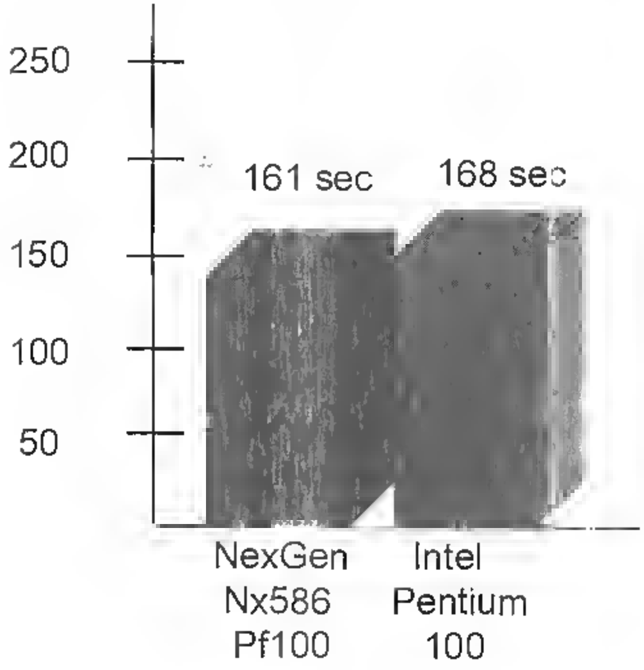
Nx586 Exhibits Equivalent Performance
PC Magazine Winstone '95

*Identical Configurations; Diamond Stealth 64 32000 PCI, Quantum 1GB Fireball, 16 MB DRAM, 800x640 256 color, 256K L2 async

NexGen™

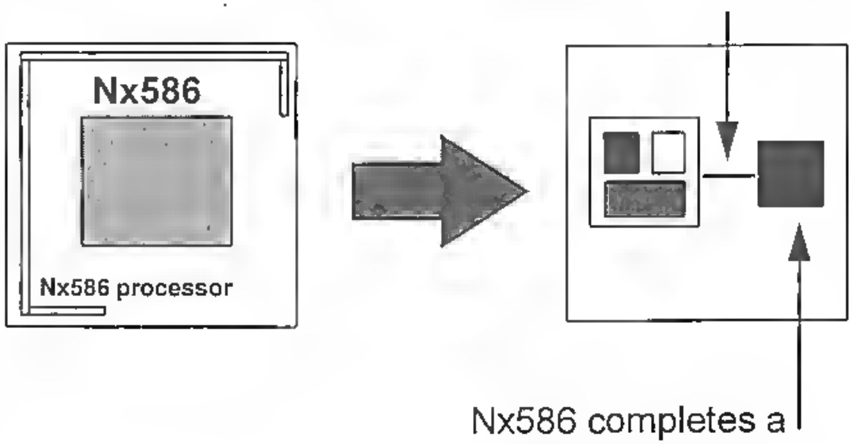
Nx586 Can Now Be Equipped With Floating Point Unit

San Diego AutoCAD Users Group ACAD Benchmark v12



Nx586 with FPU featured in multi-chip module packaging.

Dedicated 64bit bus to CPU

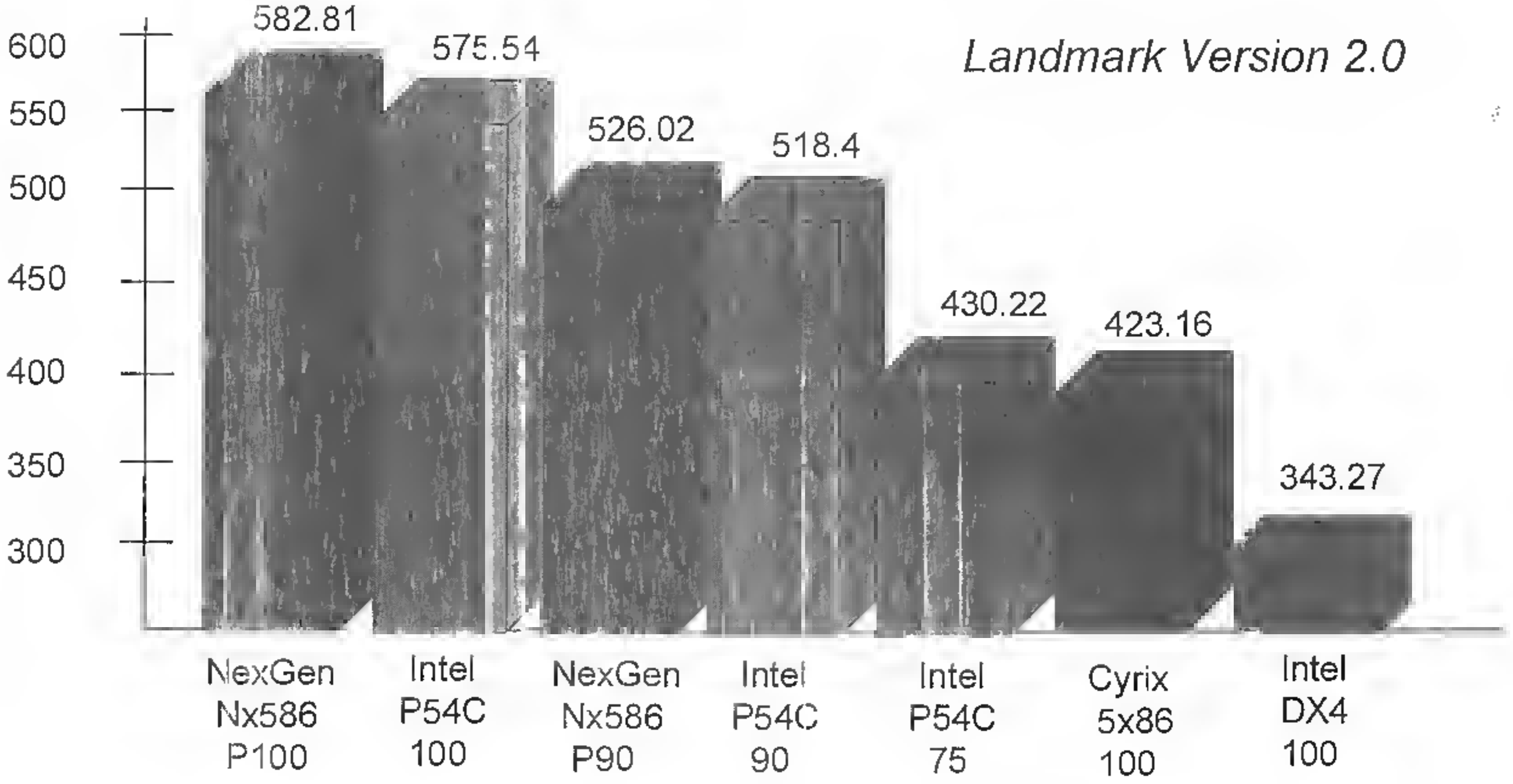


Nx586 completes a floating point operation in two cycles. Intel Pentium requires three.

Nx586 Pf100 Outperforms Pentium 100 on AutoCAD

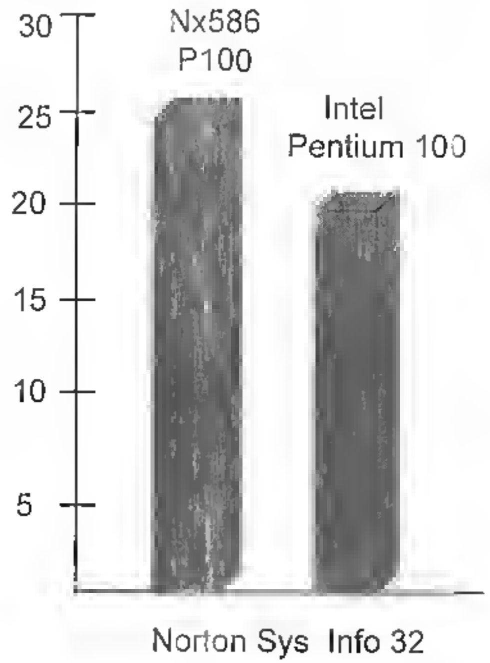
*Identical Configurations; Diamond Stealth 64 32000 PCI, Quantum 1GB Fireball, 16 MB DRAM, 800x640 256 color, 256K L2 async

When it Comes to Nx586 Performance Leading 16-bit Benchmarks Speak for Themselves



Key Reasons to Buy NexGen

Superior Performance



Proven Compatibility

Designed for
Microsoft®
Windows®95

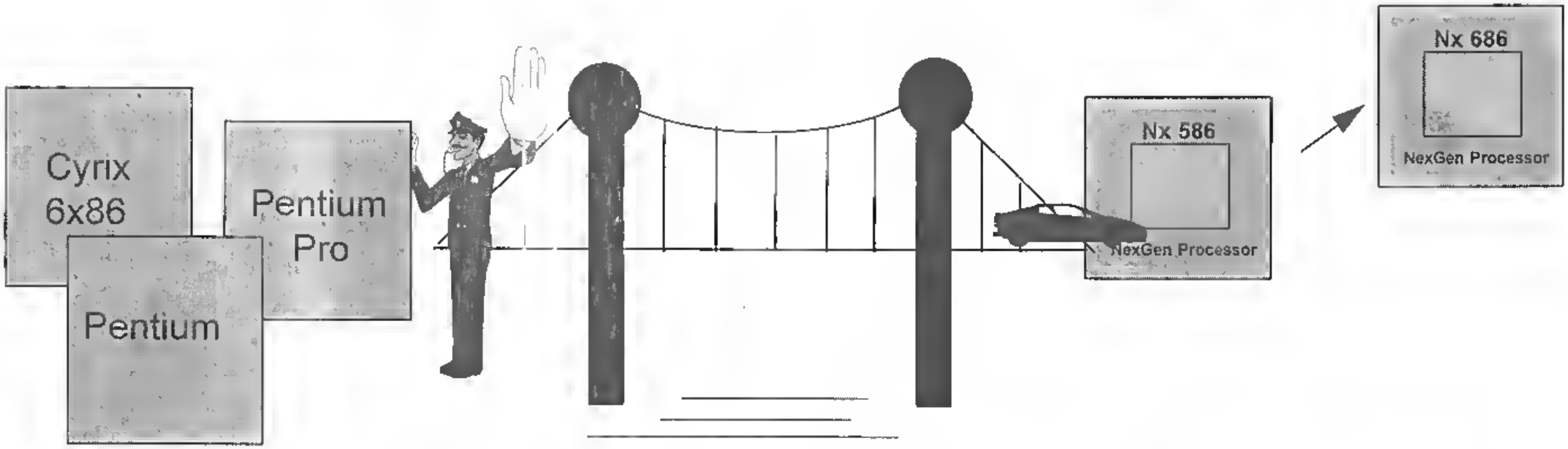
Available and Ready™
for OS/2

yes
It runs with
NetWare®

Great Price !

> ". . . the first affordable alternative to Intel Corp's Pentium that does not involve sacrificing price."
>
> \- PC Magazine

Today's Nx586 Provides Solid Performance on 16-bit Applications and an All Important Growth Path to 32-bit.



NexGen has already crossed the bridge to economical 32-bit performance.

Intel Pentium and Pentium Pro (P6) and Cyrix 6x86 are still at the toll gate.

Pentium does not include Pentium Pro's enhancement for 32-bit applications.

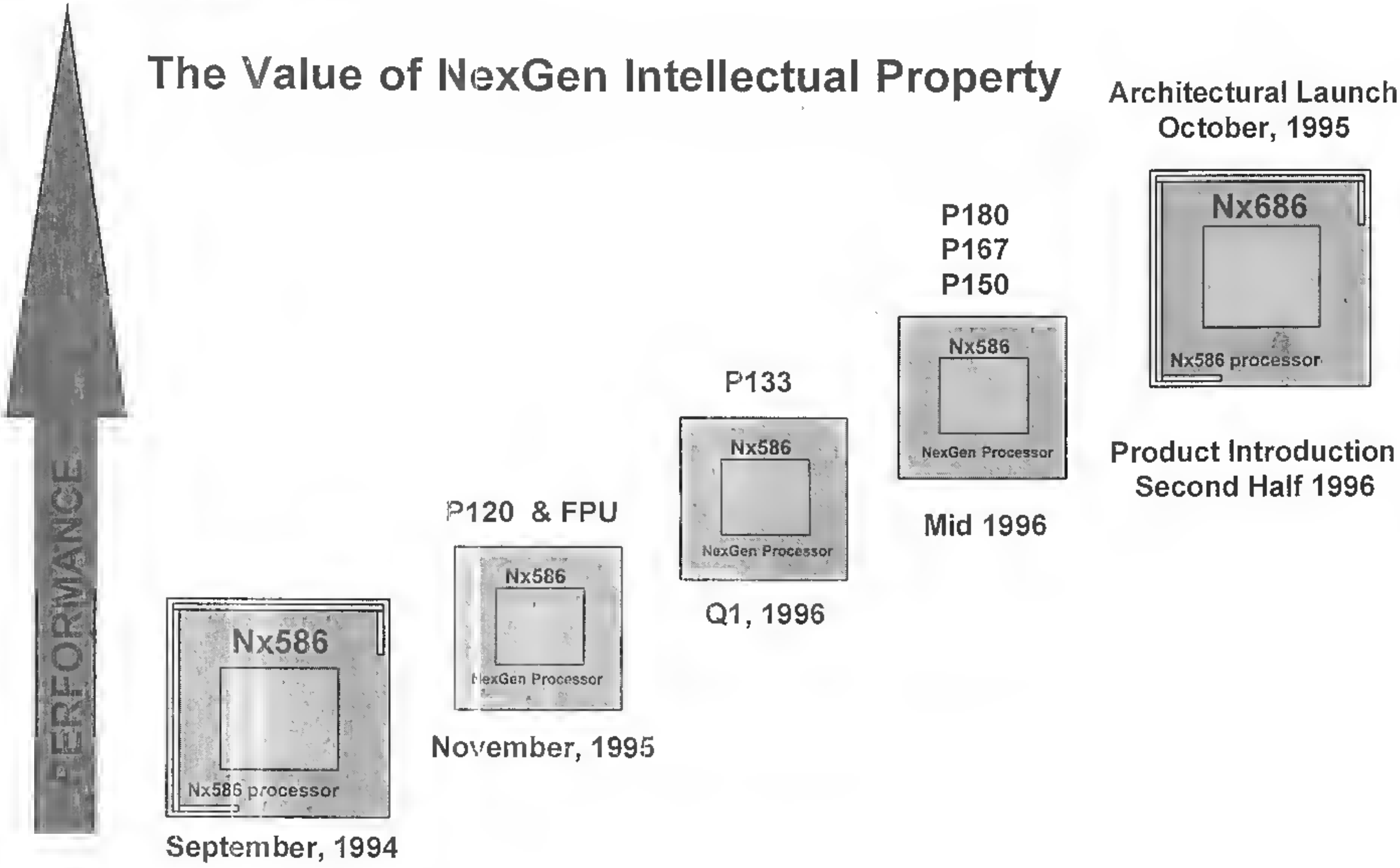
In Short

The value priced Nx586 processor contains:

- All the cornerstones of a 686-class processor.
- Provides comparable 16-bit and superior 32-bit performance compared to Pentium
- Preserves your hardware investment as programs migrate more and more to 32-bit.

NexGen™

The Value of NexGen Intellectual Property



September, 1994

P120 & FPU

November, 1995

P133

Q1, 1996

P180
P167
P150

Mid 1996

Architectural Launch
October, 1995

Product Introduction
Second Half 1996

Preview - Nx686 (AMD K6) Code Name "Catapult"

- Multiple x86 instruction decode.
- Seven execution units.
- Speculative, out-of-order execution.
- High performance floating point unit.
- High performance multimedia execution unit.
- 64K Advanced L1 Cache: 32 KB Data, 32 KB Instruction

NexGen™

Executive Management

Atiq Raza, CEO. Previously VP, GM Logic Products, VLSI Technology

Vinod Dham, COO. Previously VP, GM Pentium Division, Intel

Dana Krelle, Sr. VP Sales & Marketing. Previously Dir. Mktg., Desktop Processors, Intel

David Rickey, Sr. VP Operations. Previously VP Operations, AMCC

Anthony Chan, CFO. Previously CFO, Cygnus; Controller VLSI Technology

David Sheffler, VP Sales. Previously Division Mgr., Dell; Gen Mgr., Business Land

Principal Investors

Compaq

Olivetti

ASCII

Kleiner Perkins

Paine Weber

Harvard Management